ENTOMOLOGICAL NEWS

JUNE 1943

Vol. LIV **No. 6**

CONTENTS

Stallings and Turner—Strymon falacer ab. heathi (Lepidoptera) 131

Jones—Autumnal migration of Phoebis sennae eubule (Lepidoptera) 133

Fernald—Another Sphecine from Florida (Hymenoptera) 135

Hull—New species of Baccha and related flies (Diptera) 135

Note—A plea for discarded copies of scientific magazines 140

Current entomological literature 141

PUBLISHED MONTHLY, EXCEPT JULY AND AUGUST, BY
THE AMERICAN ENTOMOLOGICAL SOCIETY
PRINCE AND LEMON STS., LANCASTER, PA.
AND
THE ACADEMY OF NATURAL SCIENCES, PHILADELPHIA, PA.

Subscription, per yearly volume of ten numbers: $3.00 domestic; $3.30 foreign; $3.15 Canada.
Entered as second-class matter April 19, 1943, at the post office at Lancaster, Pa., under the Act of March 3, 1879. Acceptance for mailing at the special rate of postage prescribed for in Section 1, Act of October 3, 1917, authorized January 15, 1921.

EDITORIAL STAFF

PHILIP P. CALVERT, Ph.D., Editor; E. T. CRESSON, JR., J. A. G. REHN, A. G. RICHARDS, JR., Ph.D., R. G. SCHMIEDER, Ph.D.

Subscription price, per yearly volume of 10 numbers: Domestic, including Mexico, $3.00; Foreign, $3.30; Canada, including Newfoundland and Labrador, $3.15; all other countries, $3.30—U. S. Currency.

ADVERTISING RATES: Full width of page. Payments in advance.

	1 Inch	2 Inches	3 Inches	6 Inches
One Issue	$1.00	$ 1.90	$ 2.75	$ 4.80
Five Issues	4.50	8.50	12.00	21.00
Ten Issues	8.00	15.00	21.00	36.00

MANUSCRIPTS, ADVERTISEMENTS, SUBSCRIPTIONS: All communications and remittances to be addressed to **ENTOMOLOGICAL NEWS, 1900 Race Street, Philadelphia, Pa.**

The receipt of all papers will be acknowledged and, if accepted, they will be published as soon as possible. If not accepted, authors will be so advised and postage requested for return of manuscripts. Articles longer than six printed pages may be published in two or more installments, unless the author is willing to pay for the cost of a sufficient number of additional pages in any one issue to enable such an article to appear without division.

Proof will not be sent to authors, so manuscripts must be in final form for printing.

SEPARATA: Twenty-five extras of an author's contribution will be given free. They will be "run of form," without removal of extraneous matter, folded but not bound, uncut and without cover.

Authors wishing more than the 25 separates must so advise the Editor or the printer. See bottom of this page.

ILLUSTRATIONS will be published at the author's expense as follows: Cost of engraving plus cost of printing text-figures exceeding 2 inches in height; or plus cost of printing insert plates. The size of text-figures or plates when printed must not exceed 4 x 6 inches.

All blocks will be sent to authors after publication. It is not advisable to print half-tones as text-figures.

TABLES: Authors will be charged the setting of all tables exceeding 2 inches in height.

ENTOMOLOGICAL NEWS is published monthly, excepting August and September, by The American Entomological Society at 1900 Race Street, Philadelphia, Pa., U. S. A.

SEPARATES of articles without covers, without extraneous matter, will be furnished by the printer at the following prices: 1–4 pages, 25 copies, $2.50; 50 copies, $2.50; 100 copies, $3.00. 5–8 pages, 25 copies, $4.00; 50 copies, $4.00; 100 copies, $4.75. 9–12 pages, 25 copies, $6.25; 50 copies, $6.25; 100 copies, $7.25. Covers: first 50, $2.75; additionals at 2 cents each. Plates, printed on one side: first 50, $2.00; additionals at ½ cent each. Transportation charges will be extra. THE LANCASTER PRESS, INC., Lancaster, Pa.

ENTOMOLOGICAL NEWS

VOL. LIV JUNE, 1943 No. 6

Strymon falacer ab. Heathi (Fletcher) (Lepidoptera: Lycaenidae).

DON B. STALLINGS & Dr. J. R. TURNER, Caldwell, Kansas.

In 1904 Fletcher described a specimen caught in southern Manitoba by E. F. Heath as a new species and named it *Thecla heathi*.[1] So far as we are able to determine no additional specimens have ever been recorded.

Dr. Holland in his Butterfly Book (Revised Edition) page 243, suggests that *heathi* may be a hybrid of *Strymon titus* (Fabr.) and some other species. Dr. A. H. Clark and William D. Field, after careful study of the type, are of the opinion that *heathi* is an aberration of *Strymon falacer* (Godart). In this we concur.

On May 24, 1942 at Cache, Oklahoma, Robert Whittaker captured a male specimen of *Strymon falacer* ab. *heathi* (See plate II, bottom row, from left to right, figure 3). This specimen was flying with normal *falacer* along with *Strymon ontario autolycus* (Edwards). Two weeks later these writers while collecting at the same place (June 2, 1942, Cache, Okla.) found that the flight of *autolycus* had been replaced with a flight of *Strymon alcestis* (Edwards). *Strymon falacer* were still flying in fair numbers. At that time each of us was successful in capturing an aberration of *Strymon alcestis* (See plate II, bottom row, from left to right, figures 1 and 2) which varied from the normal form of *alcestis* in the same manner that *heathi* varies from *falacer*. Since then Cyril dos Passos advises us that he has a similar aberration of *Strymon alcestis* captured at Taloga, Okla., on June 3, 1939. On July 6, 1942 near Beulah,

[1] For original description see *Canadian Entomologist*, vol. 36, pp. 125–127, May, 1904, one figure.

Colo. (elevation 7000 feet) Dr. R. C. Turner, Jr. captured a female aberration of *Strymon falacer godarti* (Field) (See Plate II, bottom row, from left to right, figure 4) that had *heathi* characters. This specimen was captured in flight with other *godarti*. No other species of *Strymon* were found flying in the vicinity. At the time of capture several normal males of *godarti* were attempting to mate with this specimen.

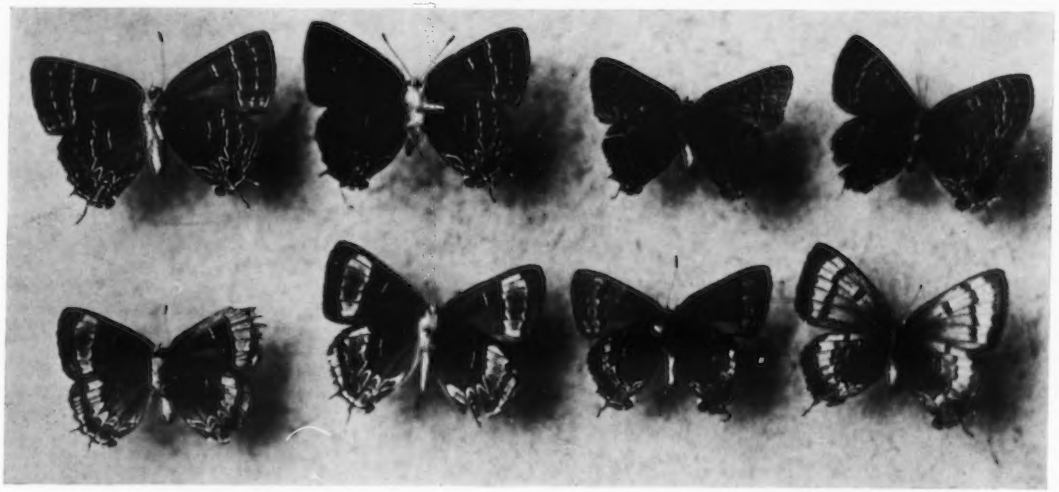
Comparing these aberrations with Holland's picture of *heathi* on his plate LXXVI, figure 16 it is readily seen that all of these specimens fall under the classification of *Albifusim* (From Gunder's Classifications) or white design radiation, as does the original specimen of *heathi*.

An examination of plate 49, figure 14 in Comstock's "Butterflies of California" discloses a specimen of *Strymon adenostomatis* (Hy. Edwards) which is an aberration varying in the same manner as *heathi* and the figured *alcestis* aberrations. We are advised by Harry K. Clench that a similar aberration of *Strymon ontario autolycus* is in the Museum of Comparative Zoology at Cambridge, Mass.

From the foregoing it appears that *heathi*-like aberrations probably occur throughout the genus *Strymon*. We would be interested in data on other specimens that fall within this classification.

Explanation of Plate II

Top row from left to right: Figures 1 & 2.—Normal specimens of *Strymon alcestis*, Cache, Okla. June 2, 1942. Figure 3.—Normal specimen of *Strymon falacer*, Cache, Okla. June 2, 1942. Figure 4.—Normal specimen of *Strymon falacer godarti*, Beulah, Colo. July 5, 1942. Bottom row from left to right: Figure 1 and 2.—Aberrations of *Strymon alcestis*, Cache, Okla. June 2, 1942. Figure 3.—Aberrations of *Strymon falacer*, Cache, Okla. May 24, 1942. Figure 4.—Aberration of *Strymon falacer godarti*, Beulah, Colo. July 6, 1942. Figures 1⅔ natural size.



STRYMON FALACER ab. HEATHI—Stallings and Turner.

Autumnal Migration of Phoebis sennae eubule (Lepidoptera, Pieridae).

By Joseph W. Jones, Jr., Newbern, Tenn.

Recently the writer witnessed a pronounced autumnal migration of *Phoebis sennae eubule* (L.) (The Cloudless Sulfur) in northern Mississippi. This butterfly is ordinarily a rather common species throughout the lower Mississippi Valley in the late summer, often congregating in large numbers at certain spots on the damp sands of woodland roads and along stream banks.

The Cloudless Sulfur has long been known as a "wanderer." Charles Darwin reported a vast flight of these yellow butterflies at sea which appeared as a large yellow cloud and which is reported to have been over a mile wide and many miles long. Williams has named the species the "traveling butterfly," and Comstock relates incidents of its migration.

The movement with which this report is concerned was first noted on the morning of September 9th, 1942 just north of Oxford, Mississippi. The migration itself was apparent to some degree for more than two days; however, the movement was a general one for the most part. It is interesting to note that the observer first became aware of a migration while driving north on State Highway Number Seven from Oxford to Abbeville, Mississippi at nine o'clock in the morning. The butterflies were observed to be crossing the road with unusual frequency and all flying in the same direction. In the course of a mile, between twenty-five and thirty of these sulfurs would be "splashed" against the windshield. While the movement was diminutive when it first attracted the attention of the observer, it seemed to materialize over a period of several hours until by the noon hour the migration was impressive.

In order to obtain an approximate measurement of the migration, and having no standard by which to be guided, the writer established the following means. A line fifteen feet in length and lying perpendicular to the direction of flight was hypothesized in a grassy field typical of the region. By actually counting the number of butterflies passing over this line in periods

of one minute each three or four times on the half hour and calculating the average the writer was able to formulate the table which shows the average migration rate on the half hour.

An Average One Minute Interval	*Number of Individuals*
at: 9:30 am	1.3
at: 10:00 am	1.43
at: 10:30 am	1.85
at: 11:00 am	2.4
at: 11:30 am	3.0
at: 12:00 noon	3.7
at: 12:30 pm	4.1
at: 1:00 pm	4.17
at: 1:30 pm	4.19
at: 2:00 pm	4.16
at: 2:30 pm	4.0
at: 3:00 pm	3.79

The butterflies flew rapidly and in a characteristic erratic manner, always moving to the southeast and at a rate approximating five to eight miles per hour. The flight itself was a little over fourteen miles in width and passed a given point in noticeable numbers for over two days, always bearing to the southeast and with the individuals flying at varying heights but usually at about six to ten feet when undeviated by obstructing buildings and trees which they always seemed to pass over rather than to change the course and pass around. Individuals were not observed to halt for feeding or for rest during the day. One received the teleological impression that the insects knew where they were bound and that they were in a hurry to arrive at this set destination. Yet, with the coming of dusk, the individuals began to drop out of the flight and to fall to rest in the tall meadow grass where they were joined by others so that members of the flight rested in small clusters for the most part with relatively few butterflies resting individually.

The previous day had been very cloudy with rain and low temperatures for that time of the year. On the days of the actual migration humidity was high. At no time during observation of the migration was the sun visible since low clouds filled the sky for several days.

Another Sphecine from Florida (Hym., Sphecidae).

By H. T. FERNALD, Winter Park, Florida.

The following record should be added to the Annotated List of Florida Sphecinae published in Entomological News, Dec., 1942.

SPHEX PROCERUS (Dahlb.).

Ammophila procera Dahlbom, Hym. Eur., I, 15, 1845.
Ammophila Gryphus Smith, Hym. Brit. Mus., IV, 222, 1856.
Ammophila conditor Smith, Hym. Brit. Mus., IV, 223, 1856.
Ammophila macra Cresson, Proc. Ent. Soc. Phila., IV, 460, 1865.

East Florida; Jacksonville; Gainesville, XI, 13, 1918; Apalachicola, VII, 21, 1909; Crescent City; Indian River City, IV, 23, 1932; Orlando, IV, 21, 1928; XI, 8, 1935; Winter Park, V, 22, 1942; VIII, 14, 1940; X, 28, 1933 (with larva of *Nadata gibbosa*); Conway, III, 30, 1927; Choloskee.

Apparently fairly common in northern and central Florida, but the Choloskee specimen is the only one I have found recorded from the southern part of the State. In spring it is taken on New Jersey Tea, in late summer on Goldenrod and in late fall on Garberia.

New Species of Baccha and Related Flies (Syrphidae).

By F. M. HULL, University of Mississippi

In recent studies of Syrphid flies some new species of *Baccha* from the Neotropical region were discovered. These species are described in this paper. The types, except where otherwise designated, are in the collection of Dr. C. L. Fluke whom I wish to thank for the loan of this material for study. Paratypes where available are in the author's collection.

Baccha scintillans n. sp.

Third and fourth abdominal segments with oval, pointed, oblique, paired yellow spots. Related to *B. variegata* Macquart.

Female: Length 9 mm. Head: face and the lower sides of the front yellow, the middle of front with an anteriorly expanded, opaque, black vittae giving way above to copper color, then violet and then to intense sapphire-blue. Antennae orange, narrowly black above, the arista black except at base. Thorax: mesonotum bright golden-brown or black with sparse yellow pile; nota and mesopleura yellow, golden pubescent. Pleura elsewhere metallic black. Scutellum opaque yellow, the posterior half brownish; squamae egg-yellow, the fringe reduced to a fragment. Abdomen: with parallel sides, first segment metallic golden on front margin and sides. The second segment is yellow with just before the middle a transverse, opaque, brown fascia; its apical margin is shining and in front of it there is an obtuse black triangle. Third segment black, the anterior corners and narrow base and wide posterior margin shining, the remainder opaque, with a pair of long, slender, oblique, leaf-like orange spots that are narrowly separated. Fourth segment similar, fifth segment with a pair of submedial vittae. Legs: yellow, the hind femora widely black in the middle, their tibiae wholly dark brown, their basi tarsi yellow and narrowly brown above. The remaining tarsal joints are dark brown. Wings: deeply tinged with brown. Alulae absent.

Holotype female, Morro Morro, ECUADOR, July 15, 1941, 1500 meters, D. B. Laddey. *Paratype*, a female with same data. [Fluke Collection.]

Baccha vanda n. sp.

Related to *B. para* and *B. ida* Curran. The vittae upon the abdomen are more slender and isolated, obscurely brown in color and absent on the third segment.

Male: Length 9 mm. Head: face steel-blue, this color extending up to the lower part of the front; the sides of the face

are narrowly yellow, the pile whitish below and black above and broadly white pubescent. Front dull black, somewhat brownish pollinose in the middle with long black pile; the lunula is yellow but black centrally. Antennae dark brownish-black. Vertical pile black placed in a single row; ocellar triangle raised. Upper occipital pile black, ocular fringe very long, a single row behind, white, a shorter anterior row white below, black above. Thorax: mesonotum dully shining, brassy brownish-black with dark brown pollen, with paler pollen on the lateral margins and a pair of reddish-brown vittae. Mesonotal pile black, pleura metallic black. Scutellum brownish-black with abundant, erect black pile and long black fringe. Abdomen: petiolate. First segment and the second metallic black, the latter with a wide, black, opaque, subapical fascia which is extended forward in the middle almost to the base. Third segment dark brown, lighter on the lateral margin; most of the segment is occupied by a large, central, opaque black, non-vittate triangle. Fourth segment with the lateral margins upon the basal half narrowly reddish, the basal triangles and the posterior margins shining and the remainder of the segment opaque black, with a pair of linear, dark brown vittae contained therein. On the fifth segment the vittae are still more obscure. Legs: dark brown, the hind pair almost black, their second to fourth tarsal joints pale yellow. The bases of the tibiae are narrowly light brown. Wings smoky brown throughout. Alulae well developed.

Holotype male, *allotype* female, and three male and two female *paratypes*. Nova Teutonia, Santa Catherina, BRAZIL. (Fritz Plaumann.) [Fluke Collection.]

Baccha (Mimocalla) erebus n. sp.

Related to *B. capitata* Loew. The face is yellow; thorax black with slender, inconspicuous, yellow vittae.

Male: Length 13 mm. Head: face yellow, dark brown in the middle, narrowly yellow on the lateral frontal margins above; front shining black and protuberant. Antennae almost

wholly black. Thorax: dull black with a pair of widely separated, inconspicuous yellow pollinose vittae, evanescent past the middle and a shorter, grayish, median vittae in front of the scutellum. Anterior end of post-calli and a confluent spot in front brownish yellow. Scutellum brownish yellow, faintly brown on the disk. Abdomen: quite pedicellate, the first segment dark brown, the second medium brown, its apical fifth dark brown and on either side basally, a large yellow hyaline triangle. Third segment with narrow, yellowish brown, basal fascia divided in the middle; a trace of a similar brownish one on the fourth segment; remainder of these segments shining black. Legs: the femora light brown, the ventral surface of the hind pair black with black pile, its lateral and dorsal pile reddish. All of the tibiae pale yellow with small brown spots in the middle, wider on the hind pair. Tarsi yellow, the hind pair orange, blackish on upper surface with golden pile. Wings: hyaline, stigma and costal cell yellow, third vein and subapical cross vein with characteristic dip and flexure; alulae large.

Holotype male, three male paratypes. Nova Teutonia, Santa Catherina, BRAZIL. (Fritz Plaumann.) [Fluke Collection.]

Baccha neptuna n. sp.

Characterized by the complete or narrowly interrupted fascia on the second and third abdominal segments. Related to *B. sepia* Hull.

Male: Length 10 mm. Head: face deep yellow, the front orange-brown with copious black pile, a linear brown stripe, and black spot over lunula. Antennae orange, the third joint brown above. Vertex shining blackish. Thorax: mesonotum brassy black or brown with a prominent pair of widely separated, diverging, posteriorly acuminate vittae of yellowish brown pollen that reach to the posterior third. Pile yellowish. Humeri, the lateral margins, the post-calli, the posterior half of mesopleura, and upper part of sternopleura, deep yellow. Scutellum yellow, broadly brown over the disc when viewed

laterally, it has a number of long black hairs and four long ventral fringe hairs, black. Abdomen: wide, elongate, flattened, with parallel sides, sepia-brown and marked with yellow. The whole of the first segment is yellow, except its posterior margin; most of its pile long and black. Second segment a little longer than wide with gently arched, central yellow fascia margined with opaque brown. Third segment square with central, transverse, linearly divided, yellow fascia not reaching the sides. Fourth segment with more widely separated, downward turned, comma-like spots. Fifth segment with slender, obscure, submedial vittae. Legs: yellow, hind femora brownish black, dark brown in the middle and apically, their tibiae black with black pile, their basi tarsi dark brown basally, brownish yellow on the remaining segments. Wings: deeply tinged with brown throughout; alulae narrow.

Holotype male. Japuhyba, Angra, BRAZIL, March 23, 1940. (J. Lane, E. Lopez.) *Paratype* male, same data. [Fluke Collection.]

Rhinoprosopa flavophylla n. sp.

Related to *R. aenea* Hull, the face is extended much further, the black stripe is absent.

Female: Length 9 mm. Head: face and front brownish yellow, the latter with a narrow obscure brown stripe and blackish spot above the antennae, the lunula depressed on either side and brownish. The face is quite peaked and conical, in profile forming an equilateral triangle. The epistoma slants as much upward as downward. Antennal pits widely separated, the antennae orange, the third joint black narrowly above, the arista black. Extreme upper front and vertex metallic black. Frontal pile black. Thorax: mesonotum broadly black over the middle, vittae if present obscured by effects of preservation; humeri and the wide lateral margins, the whole of meso-, sterno-, ptero- and propleura yellow. Squamae dark brown with long brown fringe. Scutellum yellowish, the disc viewed

laterally, dark brown with sparse, long brown pile and no fringe. Abdomen: quite slender basally, dark brown with yellow markings. Second segment with an oblique, large, yellow lateral stripe meeting anteriorly. Third segment with a similar, central, oblique, large yellow stripe. Fourth segment with a still more oblique spot meeting near the base of the segment. Fifth segment obscurely yellow on the sides, apparently with a similar oblique spot. Legs: reddish yellow, the hind femora light brown on the apical half, their tibiae and tarsi light brown. Middle tibiae dark brown near the apex. Wings: deeply tinged with brownish yellow; apically, with ill-defined brownish spot. The alulae are well developed.

Holotype female, El Campamiento, Perené Valley, PERU, June 21, 1920, Cornell University Expedition. [In the Cornell University Collection.]

A Plea for Discarded Copies of Scientific Magazines

In response to the urgent call for paper salvage [in England] one hopes that no one will destroy copies, especially old ones, of our scientific magazines, many of which contain a large amount of valuable technical information. To throw away knowledge and aught that contains it should be looked upon as a sin. Numerous libraries have been destroyed and will want such magazines and books of similar contents to restart their useful work. We have heard of much destruction already and feel we must protest against such even at any time. Some of the smaller scientific periodicals and records of Natural History Societies are most valuable assets to a locality, a county, even it may be to the country.—Ent. Monthly Mag., Jan. 1943.

Current Entomological Literature

COMPILED BY THE EDITORIAL STAFF.

Under the above head it is intended to note papers received at the Academy of Natural Sciences of Philadelphia and the University of Pennsylvania, pertaining to the Entomology of the Americas (North and South), including Arachnida and Myriopoda. Articles irrelevant to American entomology will not be noted; but contributions to anatomy, physiology and embryology of insects, however, whether relating to American or exotic species will be recorded.

This list gives references of the current or preceding year unless otherwise noted. Continued papers, with few exceptions, are recorded only at their first installment.

For records of Economic Literature, see the Experiment Station Record, Office of Experiment Stations, Washington. Also Review of Applied Entomology, Series A, London. For records of papers on Medical Entomology, see Review of Applied Entomology, Series B.

NOTE: The figures within brackets [ ] refer to the journal in which the paper appeared, as numbered in the List of Journals given at the end of the literature. The number of the volume, and in some cases, the part, heft, &c. is followed by a colon (:). References to papers containing new forms or names not so stated in titles are followed by (*); if containing keys are followed by (k); papers pertaining exclusively to Neotropical species, and not so indicated in the title, have the symbol (S).

Papers published in ENTOMOLOGICAL NEWS are not listed.

GENERAL—AMADON, D.—Specialization and evolution. [90] 77: 133–141. ARMITAGE, H. M.—Possible economic relations of the Hawaiian insect fauna to California agriculture. [55] 19: 1–11. BALDUF, W. V.—Interrelations of insect-eating insects. [59] 35: 224–30. BARKLEY, F. A.—Classification. [63] 2: 73–75. BAUMHOFER, LYNN G.—Obituary by Orr, St. George and Wadley. [10] 45: 67–71 (portrait). BRACKHILL, H.—Birds' food in northern Baltimore. [Bull. Nat. Hist. Soc. Maryland] 13 (1): 5–10. HOOGSTRAAL, H.—Insect relations with plants. [59] 35: 231–35. LIGHT, S. F.—The determination of castes of social insects (concluded). [Q. Rev. Biol.] 18: 46–63. SMITH, S. G.—Techniques for the study of insect chromosomes. [4] 75: 4–34. TEHON, L. R.—Insects as vectors of plant pathogens. [59] 35: 237–43.

ANATOMY, PHYSIOLOGY, ETC.—DAY, M. F.—The function of the corpus allatum in muscoid Diptera. [92] 84: 127–140. FORBES, W. T. M.—The origin of wing and venational types in insects. [119] 29: 381–405, ill. JAHN AND WULFF.—Effect of temperature upon the retinal action potential. [Jour. Cell. & Comp. Physiol.] 21: 41–52. RICHARDS, A. G., JR.—Lipid nerve sheaths in insects and their probable relation to insecticide action. [6] 51: 55–69, ill. SCOTT, J. P.

—Effects of single genes on the behavior of Drosophila. [90] 77: 184–190. TAHMISIAN, T. N.—Enzymes in ontogenesis: Choline-esterase in developing Melanoplus differentialis eggs. [42] 92: 199–214. TAUBER AND GRIFFITHS.—Multinucleate hemocytes in the roach, Blatta orientalis. [Trans. Amer. Micros. Soc.] 62: 91–93. WILLIAMS, J. L.—A new relationship of the bursa copulatrix to the female reproductive system in Lepidoptera. [10] 45: 45–50.

ARACHNIDA AND MYRIOPODA—CHAMBERLIN, R. V. —On nine N. A. polydesmoid millipeds. [95] 56: 35–40 (*). CHAMBERLIN & MULAIK.—On a new family in the Notostigmata. [95] 55: 125–32, ill. (*). EWING, H. E.—The American chiggers (larvae of the Trombiculinae of the genus Acariscus, new genus). [10] 45: 57–66, ill. (*k). HOFF, C. C.—Locality records of some Hydracarina from Illinois. [59] 35: 205–6. MUMA, M. H.—An interesting scorpion record. [Bull. Nat. Hist. Soc. Maryland] 13 (1): 12. SCHLOSS, I. P.—Pseudoscorpions. [Bull. Nat. Hist. Soc. Maryland] 13 (1): 12–14. VENABLES, E. P.—Observations on the clover or brown mite, Bryobia praetiosa. [4] 75: 41–2.

THE SMALLER ORDERS—BOHART, R. M.—A new generic name in Strepsiptera and descr. of a n. sp. [19] 38: 12–13. CRAWFORD, J. C.—A new Sericothrips on Elm (Thripidae). [10] 45: 39–41. FULLER, H. S.—Fleas of New England. [6] 51: 1–12. Studies on Siphonaptera of eastern North America. [19] 38: 18–23. KEEGAN, H. L.—Some host records from the parasitological collection of the State University of Iowa. [19] 38: 54–57, ill. (*). MCDUNNOUGH, J.—A new Cinygmula from British Columbia (Ephemeroptera). [4] 75: 3, ill. MONTGOMERY, B. E.—Sympetrum internum, new name for Sympetrum decisum Auct., nec Hagen (Odon). [4] 75: 57–58. MILLS, H. B.—The gen. Oncopodura (Collembola). [63] 2: 61–63. SOMMERMAN, K. M.—Description and bionomics of Caecilius manteri n. sp. (Corrodentia). [10] 45: 29–39, ill.

ORTHOPTERA—Balduf, W. V.—New records for three Illinoisan Orthoptera. [59] 35: 190–2. Slifer, E. H.—The internal genitalia of some previously unstudied species of Acrididae. [57] 72: 225–238.

HEMIPTERA—Chen, K. F.—New gen. and sps. of Chinese Cicadas with synonymical and nomenclatorial notes. [6] 51: 19–53, ill. Frederick, J. M.—Some preliminary investigations of the green scale (Coccus viridis) in South Florida. [39] 26: 12–15 (cont.) Funkhouser, W. D.—Immature stages of Bajulata bajula. [19] 38: 44–47, ill. Oman, P. W. —A new leafhopper of the genus Helochara (Ciccadellid). [10] 45: 74–75, ill. Slater, J. S.—Developmental stages of Catorhintha mendica. [19] 38: 1–5, ill. Torre-Bueno, J. R. —Remarks on the genus Geocoris. [19] 38: 25–27.

LEPIDOPTERA—Clarke, J. F. G.—A new pest of Albizzia in the District of Columbia (Glyphipterygid). [50] 93: 205–8, ill. (*). Freeman, T. N.—Notes on the distribution of Plebeius scudderi empetri and P. scudderi aster (Lycaenid). [4] 75: 37–40. Heinrich, C.—A n. sp. of Laspeyresia, a bean pest from tropical America (Olethreutid). [10] 45: 71–3, ill. Klots, A. B.—Extension of range of Crambus teterrellus (Zincken). [19] 38: 11. Leech, H. B.—Fall flight of Bruce's measuring worm, Oporophtera bruceata. [4] 75: 20. McDunnough, J.—A note on Prodenia ornithogalli (Phalaenid). [4] 75: 1. Notes on the Betulella group of Depressaria, with descript. of n. sp. (Oecophorid). [4] 75: 34–36, ill. Hadenine notes and descriptions (Phalaenid). [4] 75: 43–57, ill. (*). Potts, R. W. L.—Systematic notes concerning American Acraeinae (Nymphalid). [55] 19: 31–32 (S*). Wind, R. G.—Notes on Apodemia (F. & F.) and other southern butterflies occurring in northern California. [19] 38: 42–43. Wyatt, A. K.—Bomolocha bijugalis and toreuta. [19] 38: 24.

DIPTERA—Alexander, C. P.—New nearctic crane-flies. Part 18. [4] 75: 13–20. New sps. of Ptychopteridae. Part

II. [19] 38: 37–42. HASEMAN, L.—The courting flight of Tabanids. [68] 97: 285–286. HULL, F. M.—A new sp. of Baccha (Syrphid). [10] 45: 50–51. New sps. of American Syrphid flies. [19] 38: 48–53. KOMP, W. H. W.—The anopheline mosquitoes of the Caribbean Region. [Bull. Nat. Inst. Health] 179: 195 pp., ill. PHILIP, C. B.—The immature stages of the deerfly, Chrysops discalis. [63] 2: 64–66. RAPP, W. F.—Additions to Smith's 1909 Diptera list. [6] 51: 70.

COLEOPTERA—BLACKMAN, M. W.—New gen. and sps. of bark beetles of the subf. Micracinae (Scolytid). [50] 93: 341–65, ill. DILLON, L. S. & E. S.—Supplementary notes on western hemisphere Monochamini. [6] 51: 13–18 (*). MALKIN, B.—Curious food-habit of Carabus nemoralis. [19] 38: 57. RIEGEL, G. T.—Cyclocephala abrupta in Illinois (Scarab.). [59] 35: 215, ill. SAYLOR, L. W.—Eight new Mexican scarab beetles collected by the Hoogstraal Expeditions. [95] 56: 21–28. SCHOOF, H. F.—The genus Conotrachelus Dejean (Curculionid) in the north central U. S. [Ill. Biol. Monographs] 19, no. 3: 1–170, ill. (*k). SCHLOSS, I.—Some blue-staining fungi of the gen. Ceratostomella found in the U. S. [Bull. Nat. Hist. Soc. Maryland] 12 (5): list of beetles associated, page 67. TISSOT, A. N.—The Mexican bean beetle in Florida. [39] 26: 1–8. VAN DYKE, E. C.—New sps. and subsps. of N. Amer. Carabidae. [55] 19: 17–30, (k). WOLCOTT, A. B.—A second sps. of Loedelia R. Lucas. [19] 38: 17.

HYMENOPTERA—BEQUAERT, J.—The generic names Chartergus, Parachartergus, Epipona and Tatua. [19] 38: 4. A spurious North American Eumenes. [19] 38: 43. BOHART, R. M.—North American Stenodynerus of the Anormis Group. [19] 38: 6–11 (k). MITCHELL, T. B.—Records and descr. in the Megachilid subg. Argyropile. [55] 19: 12–16 (*k). PATE, V. S. L.—Two unnoticed generic names in the sphecoid wasps, with notes on others. [4] 75: 2–3. On some holarctic sphecoid wasps. [19] 38: 14–16. SANDHOUSE, G. A.—The type species of the genera and subgenera of bees. [50] 92: 519–619. TAYLOR, L. H.—The sting of Polistes. [4] 75: 20.

LIST OF JOURNALS CITED

4.—Canadian Entom. 6.—Jour. New York Entom. Soc. 10.—Proc. Entom. Soc. Washington. 19.—Bull. Brooklyn Entom. Soc. 39.—Florida Entomologist. 42.—Jour. Experimental Zool. 50.—Proc. U. S. National Museum. 55.—Pan-Pacific Entom. 57.—Jour. Morphology. 59.—Trans. Illinois Sta. Acad. Sci. 63.—Proc. Montana Acad. Sciences. 68.—Science, New York. 90.—Amer. Naturalist. 92.—Biological Bulletin. 95.—Pro. Biological Soc. Washington. 119.—American Midland Naturalist. 126.—Arquiv. Higiene Saude Paublica, R. d. Janeiro.